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CLAIMS

- Process to prepare base oils from a Fischer-Tropsch synthesis product by
- (a) separating the Fischer-Tropsch synthesis product into a fraction (i) boiling in the middle distillate range and below, a heavy ends fraction (iii) and an intermediate base oil precursor fraction (ii) boiling between fraction (i) and fraction (iii),
- (b) subjecting the base oil precursor fraction (ii) to a catalytic hydroisomerisation and catalytic dewaxing
- 10 process to yield one or more base oil grades,
 - (c) subjecting the heavy ends fraction (iii) to a conversion step to yield a fraction (iv) boiling below the heavy ends fraction (iii) and
 - (d) subjecting the high boiling fraction (v) of fraction (iv) to a catalytic hydroisomerisation and catalytic dewaxing process to yield one or more base oil grades.
 - 2. Process according to claim 1, wherein the heavy ends fraction (iii) has an initial boiling point of between 500 and 600 °C.
 - 3. Process according to any one of claims 1-2, wherein step (b) is performed in the presence of a catalyst comprising a noble metal hydrogenation component and a molecular sieve selected from the group of zeolite beta, ZSM-23, ZSM-22, ZSM-35 or ZSM-12.
 - 4. Process according to any one of claims 1-3, wherein step (c) is performed as a hydrocracking/ hydroisomerisation process making use of an amorphous

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catalyst comprising an acidic functionality and a hydrogenation/dehydrogenation functionality.

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- 5. Process according to any one of claims 1-3, wherein step (c) is performed under catalytic dewaxing conditions in the presence of a catalyst comprising a molecular sieve having a 12 member ring structure and a metal hydrogenation components.
- 6. Process according to claim 5, wherein the conditions are so chosen that also a catalytic hydroisomerisation and catalytic dewaxing takes place such that in effect step (c) and (d) take place simultaneously.
- 7. Process according to any one of steps 1-5, wherein step (d) is performed in the presence of a catalyst comprising a noble metal hydrogenation component and a molecular sieve selected from the group of zeolite beta, ZSM-23, ZSM-22, ZSM-35 or ZSM-12.
- 8. Process according to any one of claims 1-7, wherein the feeds to step (a), step (b) and/or step (c) is first hydrogenated in order to remove oxygenates and/or olefins present in such feeds.
- 9. Process according to any one of claims 1-3, wherein step (c) is performed by means of a thermal cracking process.
- 10. Process according to any one of claims 1-3, wherein step (c) is performed by means of a catalytic cracking process.
 - 11. Process according to any one of claims 9 or 10, wherein the fraction boiling below 370 °C as obtained in step (c) is subjected to an oligomerization step (f).
- 12. Process according to claim 11, wherein a base oil fraction is prepared in step (f) and which base oil fraction is mixed with the base oil products obtained in step (b) and/or (d).

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13. Process according to claim 11, wherein a base oil fraction is prepared in step (f) and which base oil fraction is dewaxed in step (b).

- 14. Process according to any one of claims 1-13, wherein the effluent of step (c) is provided to step (a), such that in effect steps (b) and (d) take place simultaneously.
- 15. Process to prepare a waxy raffinate fraction boiling for more than 90 wt% between 370 and 550 °C from a Fischer-Tropsch synthesis product which boils for more than 40 wt% above 550 °C by
- (aa) separating the Fischer-Tropsch synthesis product into a fraction (i) boiling in the middle distillate range and below, a heavy ends fraction (iii) having an initial boiling point between 500 and 600 °C and a waxy raffinate fraction (ii) boiling between fraction (i) and heavy ends fraction (iii), (bb) subjecting the heavy ends fraction (iii) to a conversion step wherein part of the heavy ends fraction is converted to lower boiling compounds and recycling the effluent of the conversion
- 20 compounds and recycling the effluent of the conversion step to step (aa).